MPF(F) 101 Brief

Purpose/Agenda

Purpose:

- **Provide an MPF(F)/Seabasing Overview**

Agenda:

- **MPF(F) Operational Concept & Capabilities**
- **MPF(F) and Sea Basing**
- **What is a MEB?**
- **MPF(F) Requirements Matrix**
- **Other Interesting Things**

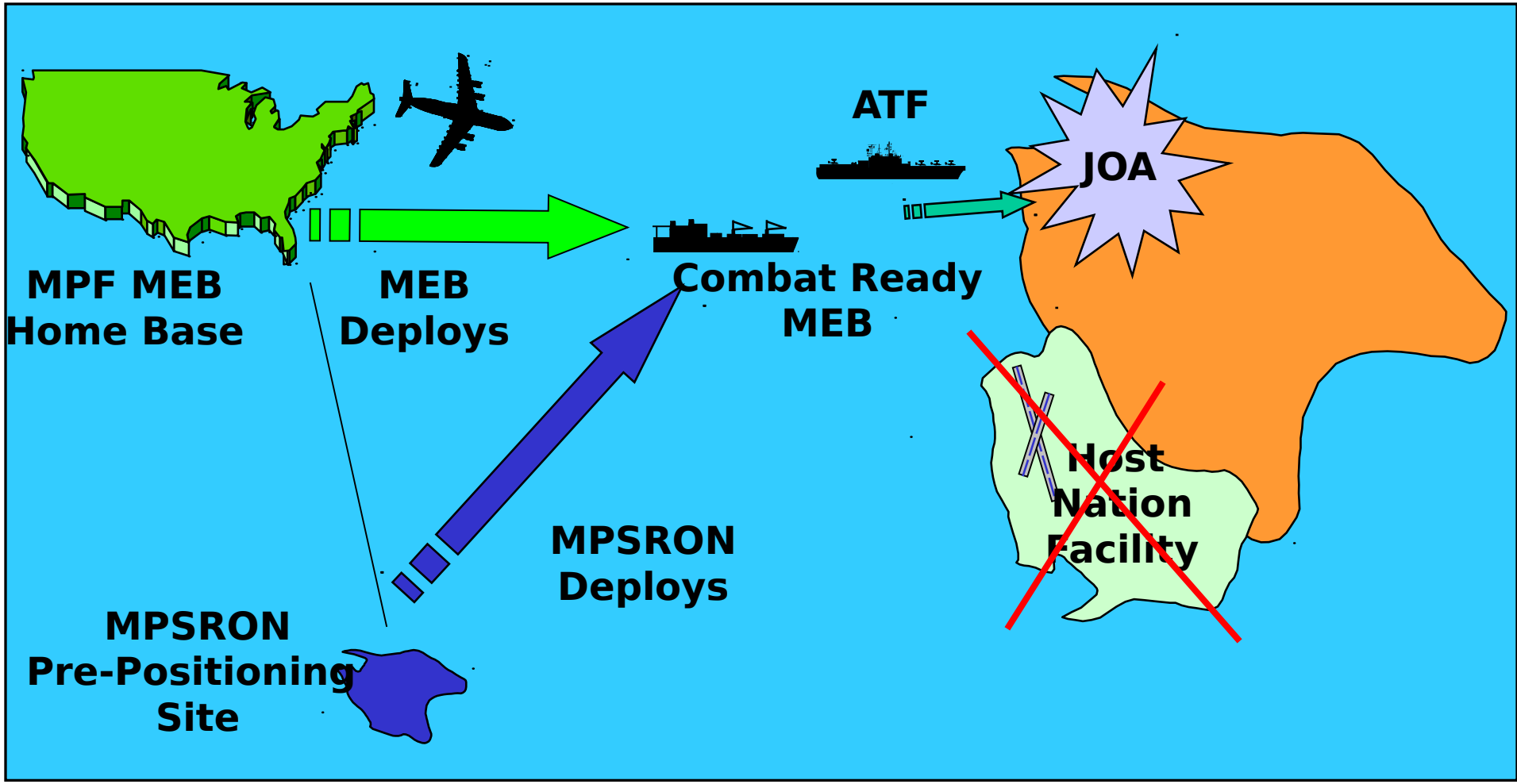
Agenda

- **MPF(F) Operational Concept & Capabilities**
- MPF(F) and Sea Basing
- What is a MEB?
- MPF(F) Requirements Matrix
- Other Interesting Things

MPF (Future)

- **Means for conducting and/or supporting Expeditionary Maneuver Warfare (EMW) from a Sea Base consisting of ships which have prepositioned USMC equipment and supplies on them.**
- **Scalable Capabilities:**
  - **"Force Closure" of personnel/aircraft**
    - **Air/surface interface, personnel billeting, support facilities**
  - **"ATF Interoperability"**
  - **"Sustainment" (conduit for log support, maintenance, selective offload)**
  - **"Expeditionary Rehabilitation for Reemployment/Redeployment"**
- **Characteristics:**
  - **Support Rotary Wing (RW) and Tilt Rotor (TR) Aviation**
  - **Support Over-The-Horizon (OTH) surface lighterage**
  - **Support skin to skin cargo transfer**

Future Employment Scenario



MPF Employment Time Line

Survey Liaison Recon Party

Deploy

~~Prepare Port~~

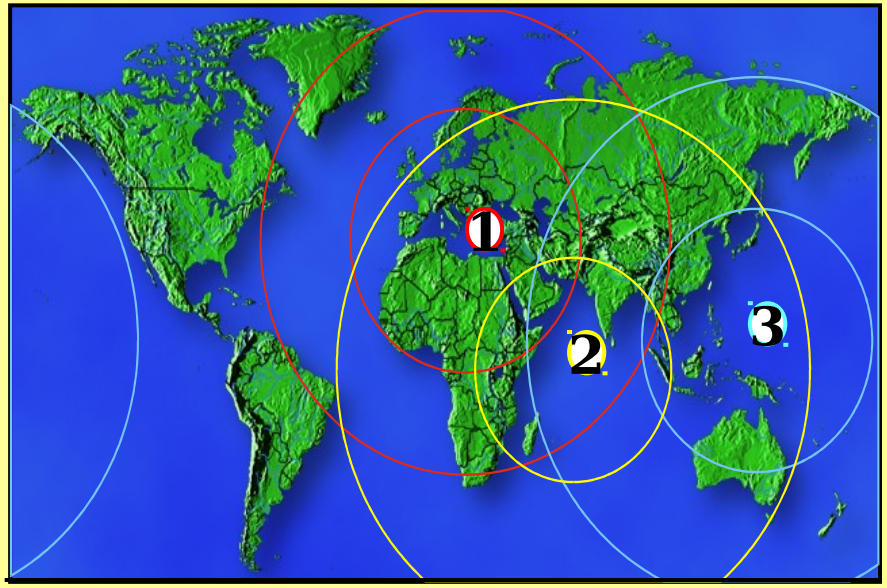
Offload Preparation Party

Deploy

~~Prepare~~ Cargo

Advance Party

Deploy



Ships

Transit

0

~~Offload~~

7

10

Main Body

Deploy / At-Sea Arrival

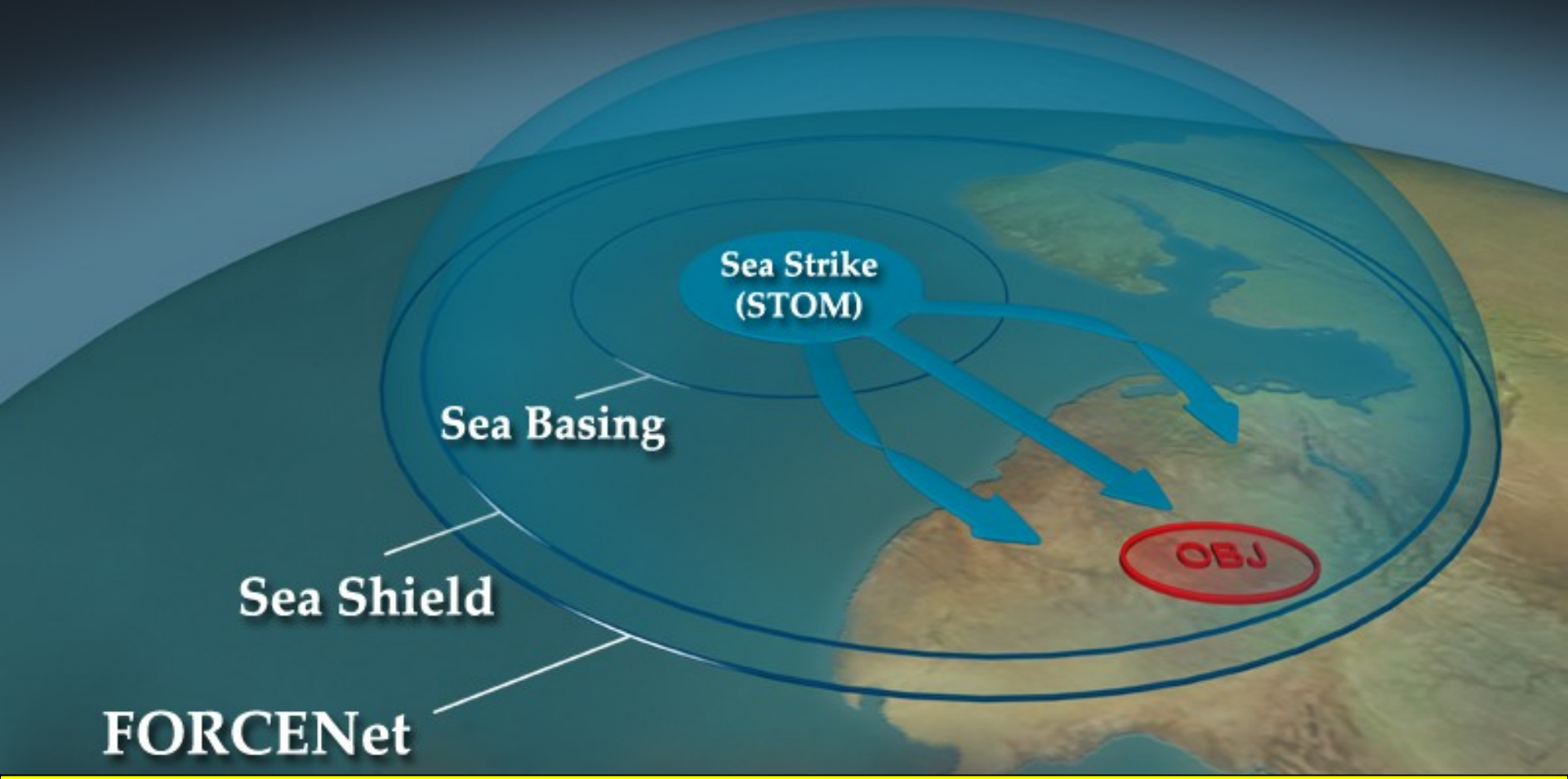
Fully Operational

0 2 4 6 7 8 10 12 14 16 17 18

Agenda

- MPF(F) Operational Concept & Capabilities
- **MPF(F) and Sea Basing**
- What is a MEB?
- MPF(F) Requirements Matrix
- Other Interesting Things

Naval Power 21



Project Offense, Project Defense, Exploit

Seabasing

- Joint Force Options from the Freedom of the Seas
- Reduced Dependence on Vulnerable Landbases
- Economical Forward Presence
- Phased At-Sea Arrival and Assembly, Selective Offload, and Projection of a MEB-sized Force within as few as 7 Days
- Supporting the Joint Fight
  - Advance Force Ops
  - SOF Support
  - Joint Sustainment
  - Joint C4ISR
  - Forward Aviation

Cornerstone Of Marine Corps

Seabasing Definition

Seabasing is the ability to rapidly deploy, assemble, equip, command, project, retrograde, and re-employ joint combat power from the sea, while providing continuous support, sustainment, and force protection to expeditionary joint forces without initial reliance on land bases within the JOA. These capabilities will enable operational maneuver and facilitate assured access and entry

Expeditionary Strike Force

Carrier Strike Group

CSG

ESG

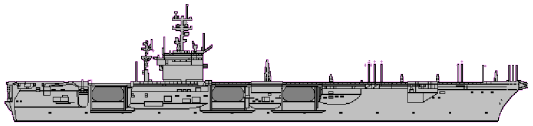
MPG

Maritime Prepositioning Group

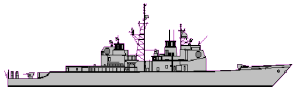
Expeditionary Strike

CSG and ESG Composition

CARRIER STRIKE GROUP



AIRCRAFT CARRIER

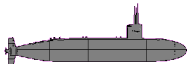


2 AEGIS CRUISERS

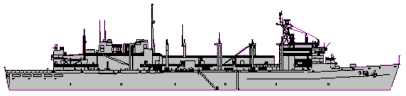
UP TO 3 AEGIS DESTROYERS

1 OR 2 DESTROYERS

A GUIDED MISSILE FRIGATE

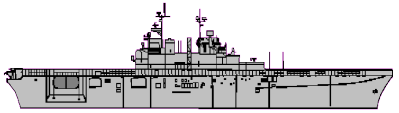


2 ATTACK SUBMARINES

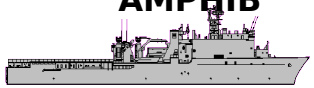


UNDERWAY REPLENISHMENT

EXPEDITIONARY STRIKE GROUP



LARGE DECK AMPHIB



AMPHIBIOUS TRANSPORT DOCK LANDING SHIP

CRUISER

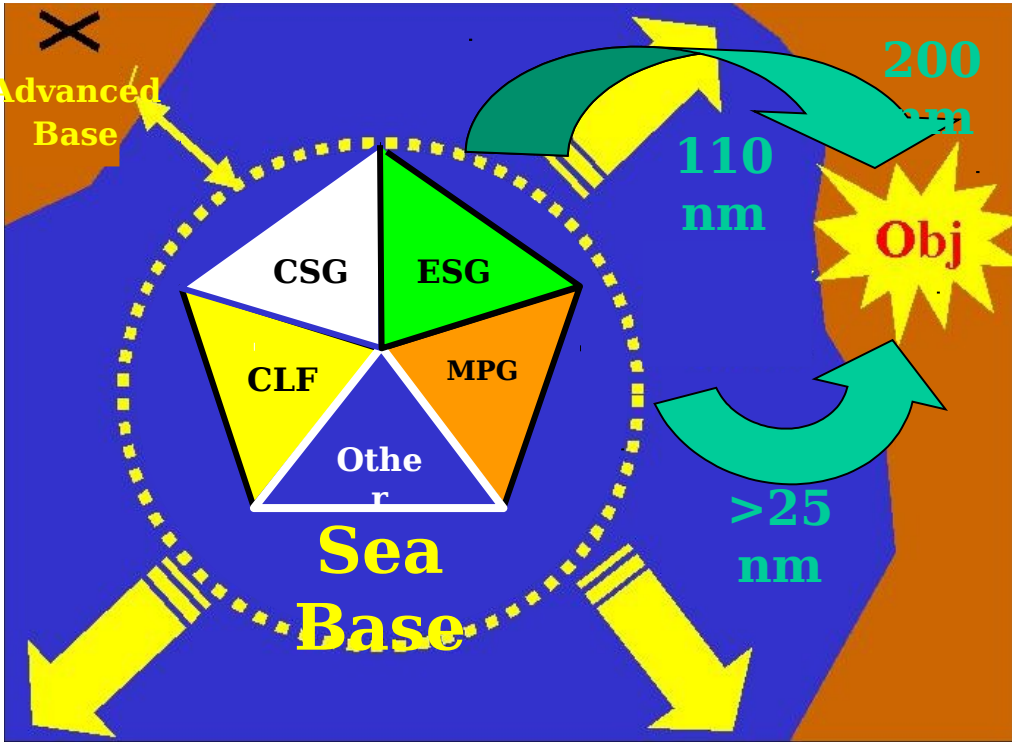
AEGIS DESTROYER

GUIDED MISSILE FRIGATE

ATTACK SUBMARINE

MPF(F) is Integral to Sea Basing

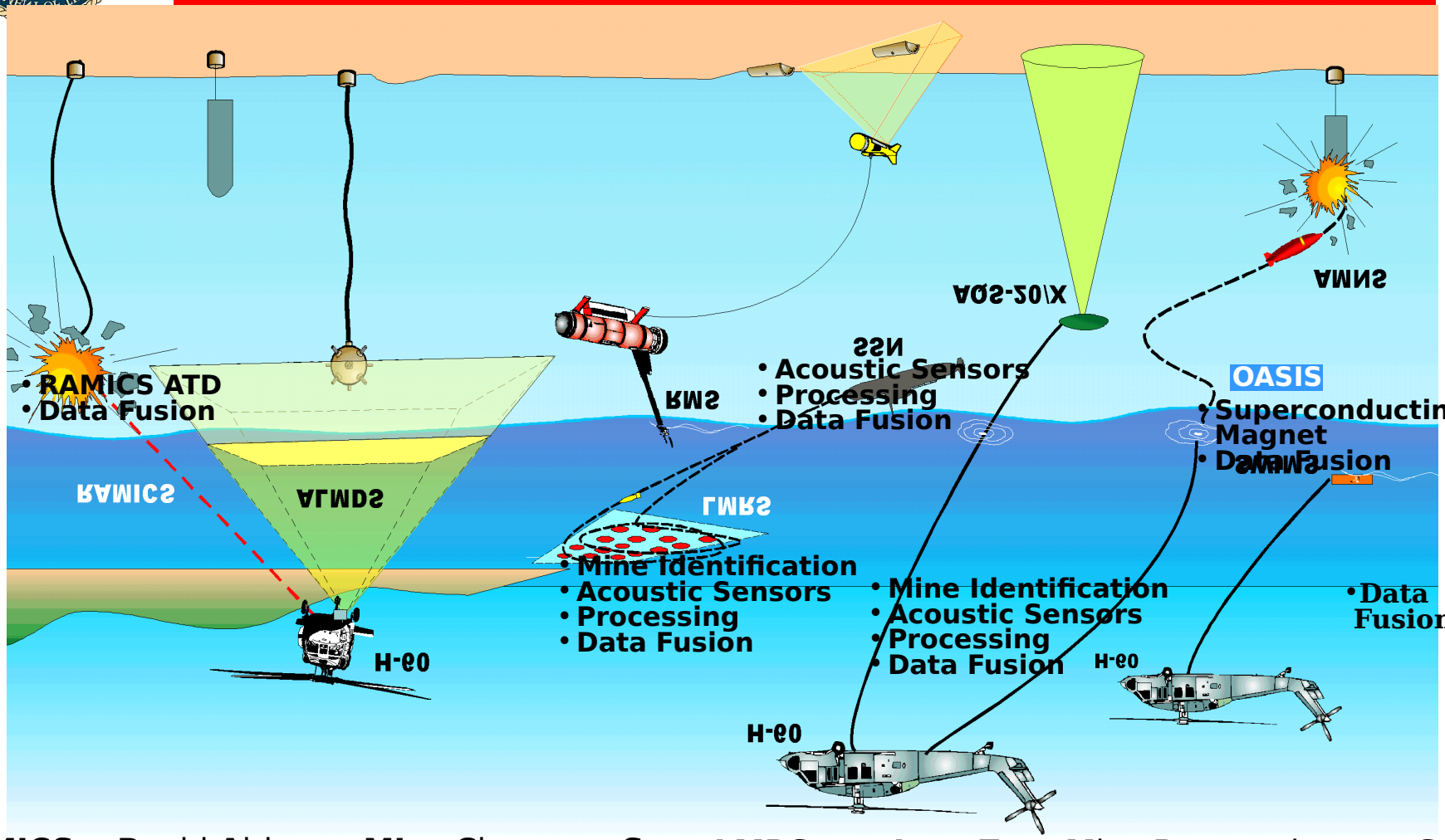
- **MPG/MPF(F) is part of Naval Sea Base**
  - **Exact composition and purpose of Sea Base depends on METT-T**
  - **Combination of a range of naval assets operating offshore**
  - **Sea Base is located where tactically and operationally appropriate (e.g. MODLOC)**
  - **Proximate to theater Advanced Base**



Sea Shield

Sea Shield plays a critical role in MPG operations in high threat areas

Developmental Organic MCM Systems



RAMICS: **R**apid **A**irborne **MI**ne **C**learance **S**ys
ALMDS: **A**irborne **L**aser **M**ine **D**etection **S**ys
RMS: **R**emote **M**inehunting **S**ys
LMRS: **L**ong-Term **M**ine **R**econnaissance **S**ys
OASIS: **O**rg. **A**irborne/**S**hip **I**nfluence **S**weep
AMNS: **A**irborne **M**ine **N**eutralization **S**ys

Marine Mammals

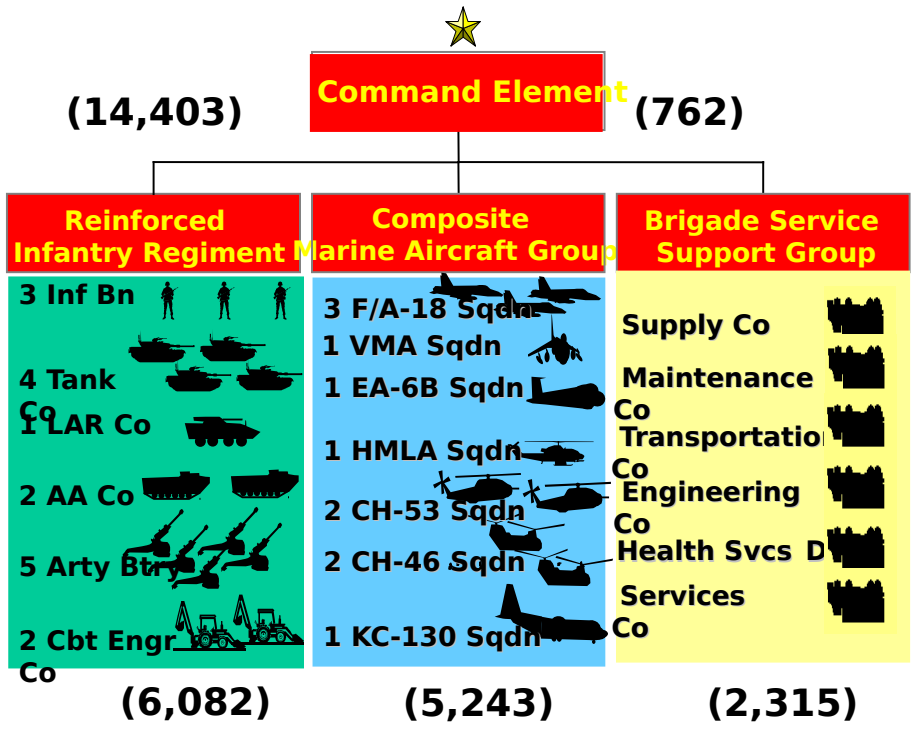
WHISKERS – THE AMAZING DE-MINING KITTEN

Agenda

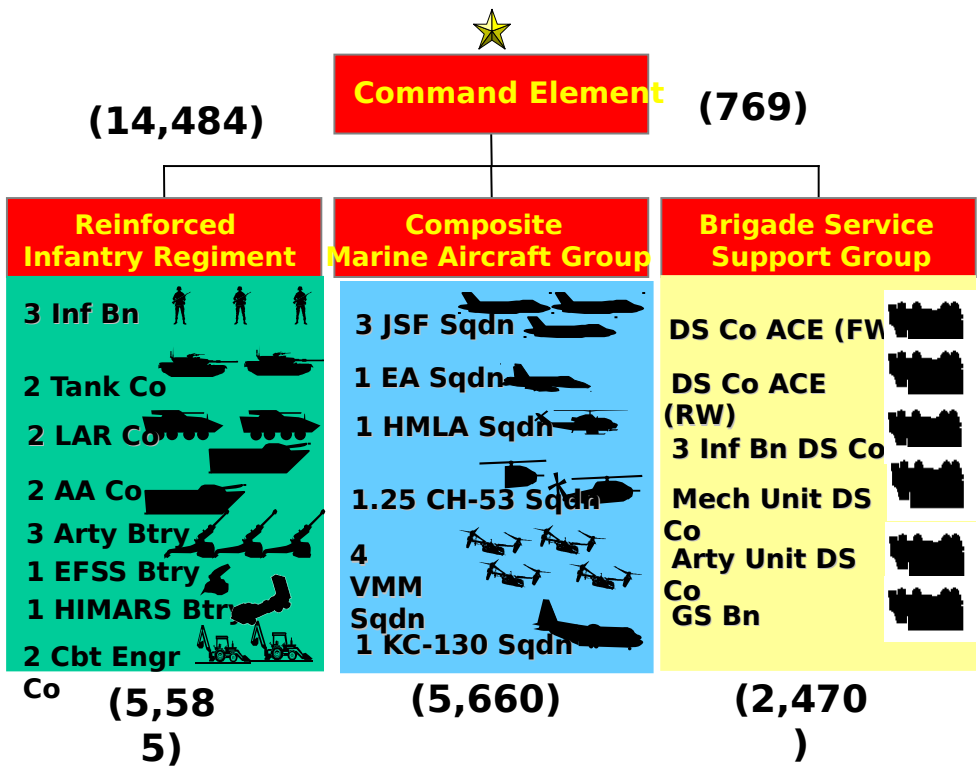
- MPF/MPF(E)/MPF(F)
- MPF(F) Operational Concept & Capabilities
- MPF(F) and Sea Basing
- **What is a MEB?**
- MPF(F) Requirements Matrix
- Other Interesting Things

MEB Comparison

Current MEB Organization MCBul 3501

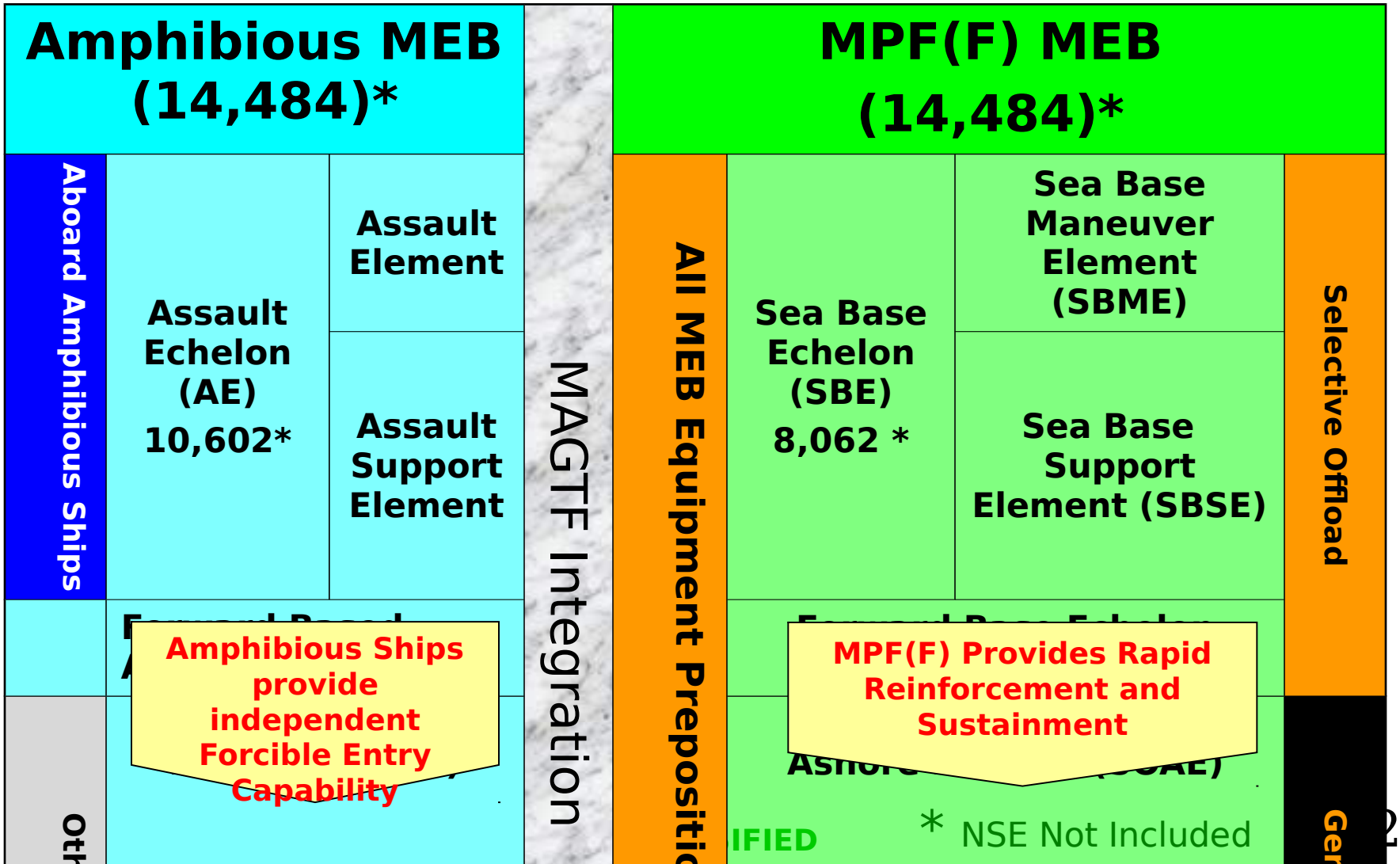


2015 Baseline MEB Organization



2015 Baseline MEB

Organization for Deployment and Employment



2015 MEB MPF(F) Update

Organization for Deployment and Employment

Function: Forces to conduct OMFTS/STOM operations by maneuvering from seabase

Personnel: 4,859

Composition:

2 X Battalion Task Forces (Surface)

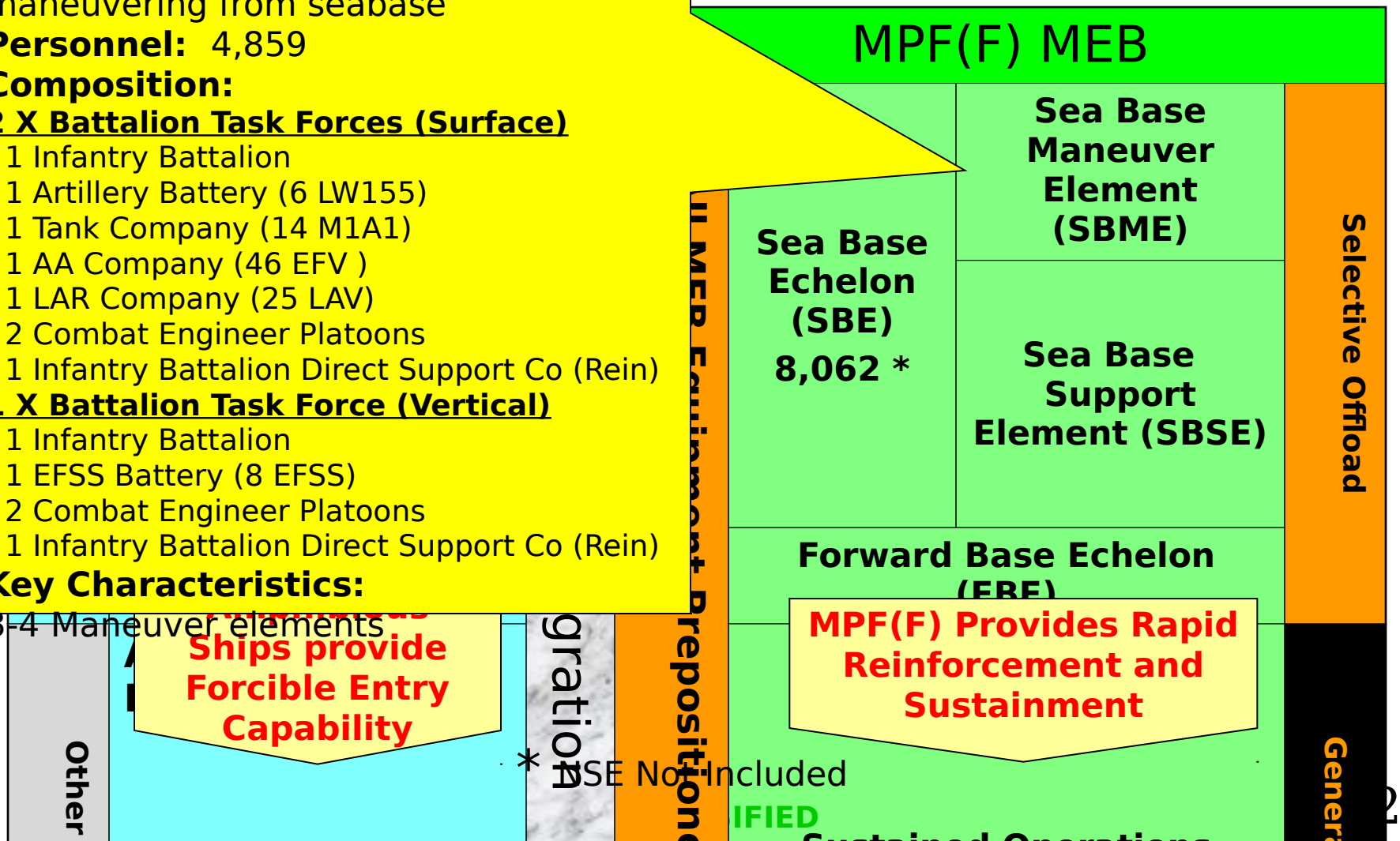
- 1 Infantry Battalion
- 1 Artillery Battery (6 LW155)
- 1 Tank Company (14 M1A1)
- 1 AA Company (46 EFV)
- 1 LAR Company (25 LAV)
- 2 Combat Engineer Platoons
- 1 Infantry Battalion Direct Support Co (Rein)

1 X Battalion Task Force (Vertical)

- 1 Infantry Battalion
- 1 EFSS Battery (8 EFSS)
- 2 Combat Engineer Platoons
- 1 Infantry Battalion Direct Support Co (Rein)

Key Characteristics:

3-4 Maneuver elements



2015 MEB MPF(F) Update

Organization for Deployment and Employment

Function: Provide seabased support (command and control, aviation, logistics and base support) to maneuver units conducting STOM/OMFTS operations ashore

Personnel: 3,203

Composition:

MEB CE

GCE Support elements (Regt CP)

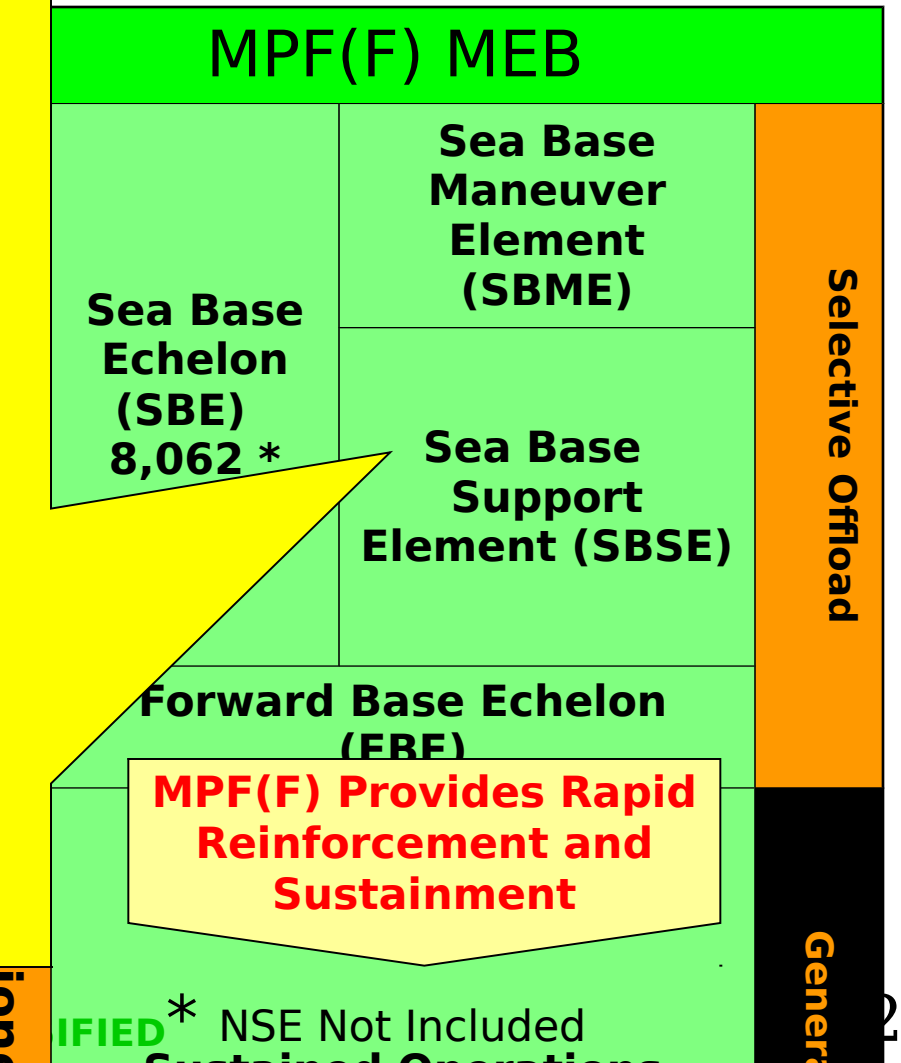
ACE

- RW MAG with 103 aircraft
-- 48 MV-22
-- 18 AH-1
-- 9 UH-1
-- 20 CH-53
-- 8 UAV
- Intermediate Aviation Maintenance

BSSG (General Support Battalion)

Key Characteristics:

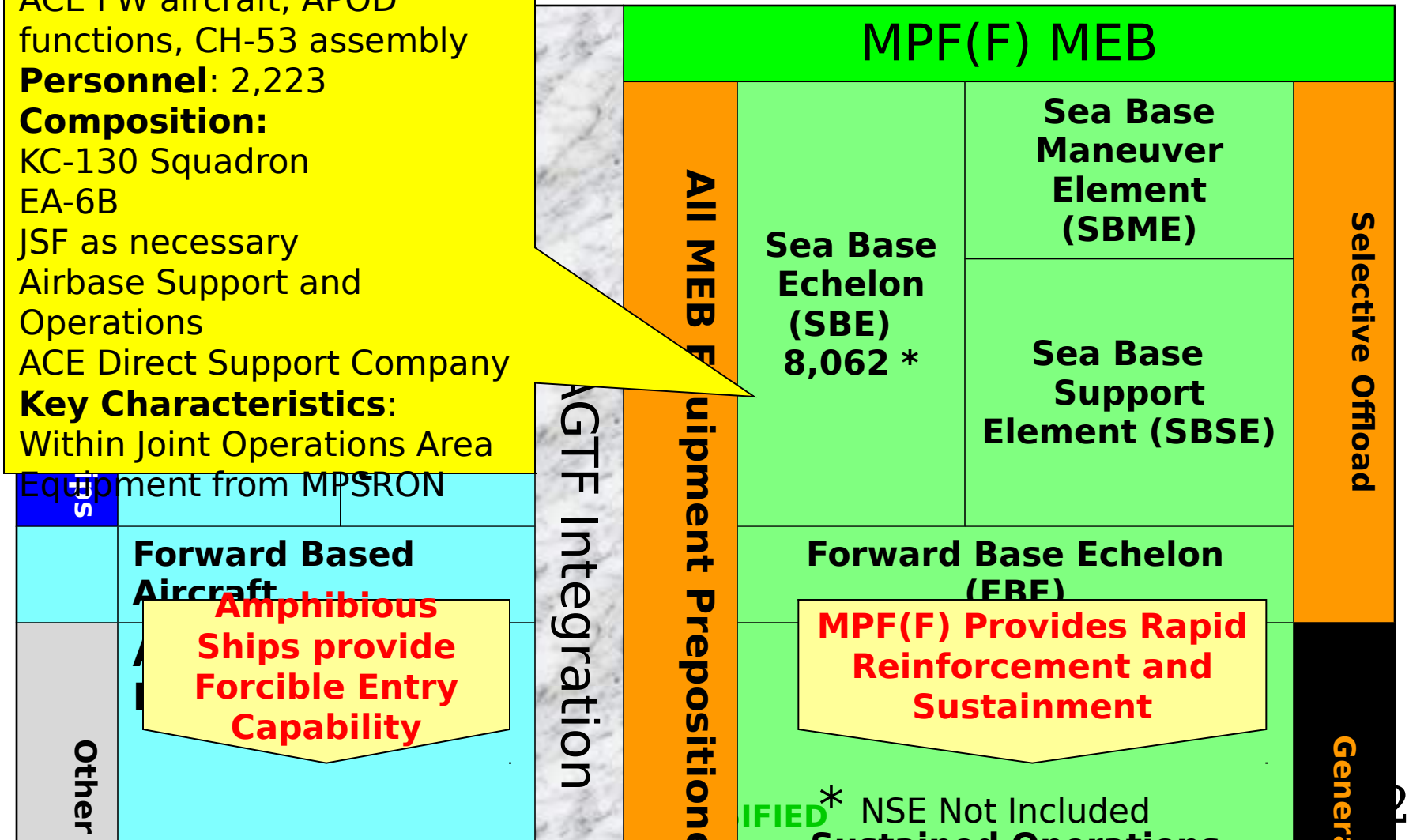
- MEB Command and Control
- Seabased Aviation and Aviation Logistics
- Seabased Logistics and Sustainment



2015 MEB MPF(F) Update

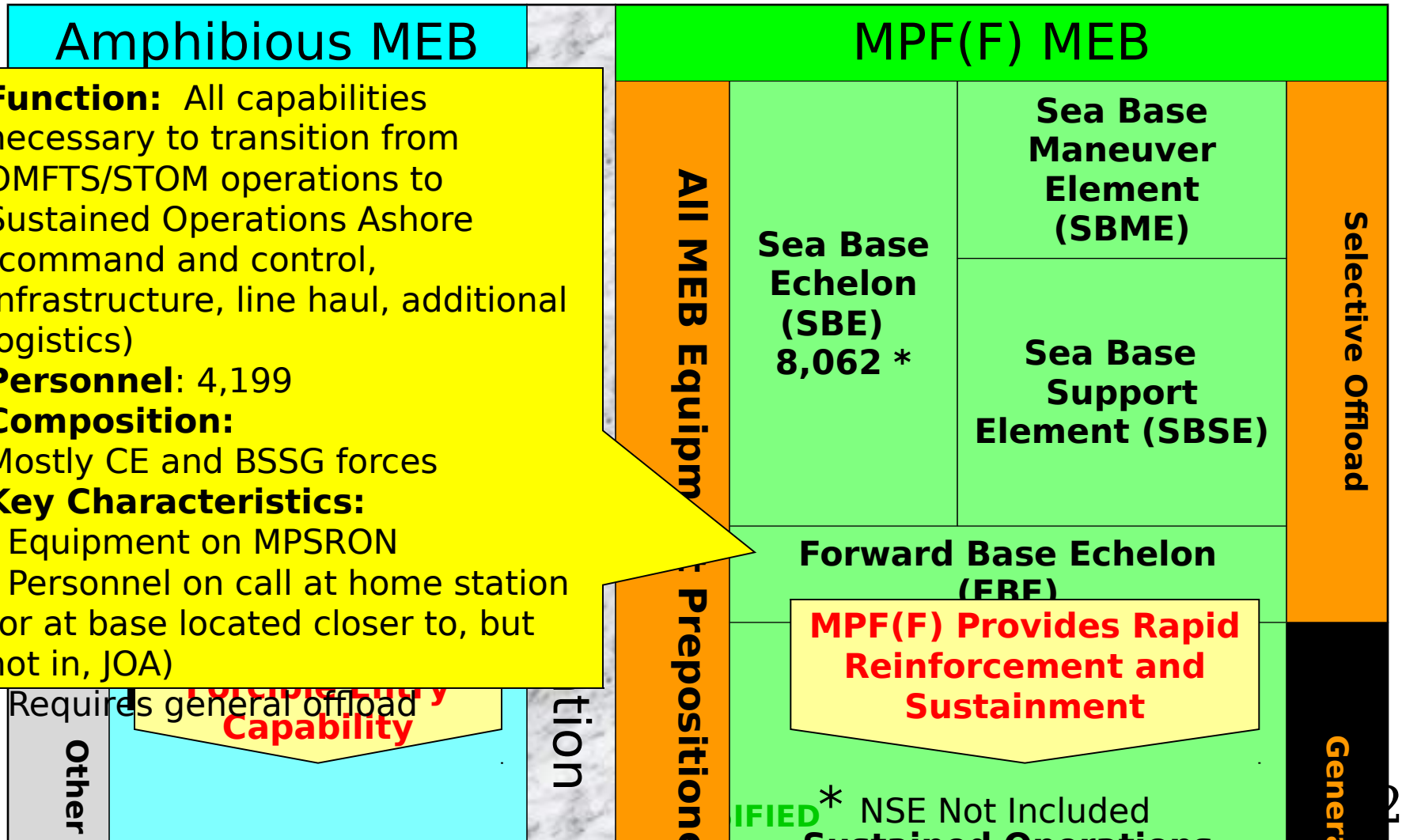
Organization for Deployment and Employment

Function: Basing for MEB ACE FW aircraft, APOD functions, CH-53 assembly
Personnel: 2,223
Composition:
KC-130 Squadron
EA-6B
JSF as necessary
Airbase Support and Operations
ACE Direct Support Company
Key Characteristics:
Within Joint Operations Area
Equipment from MPSRON



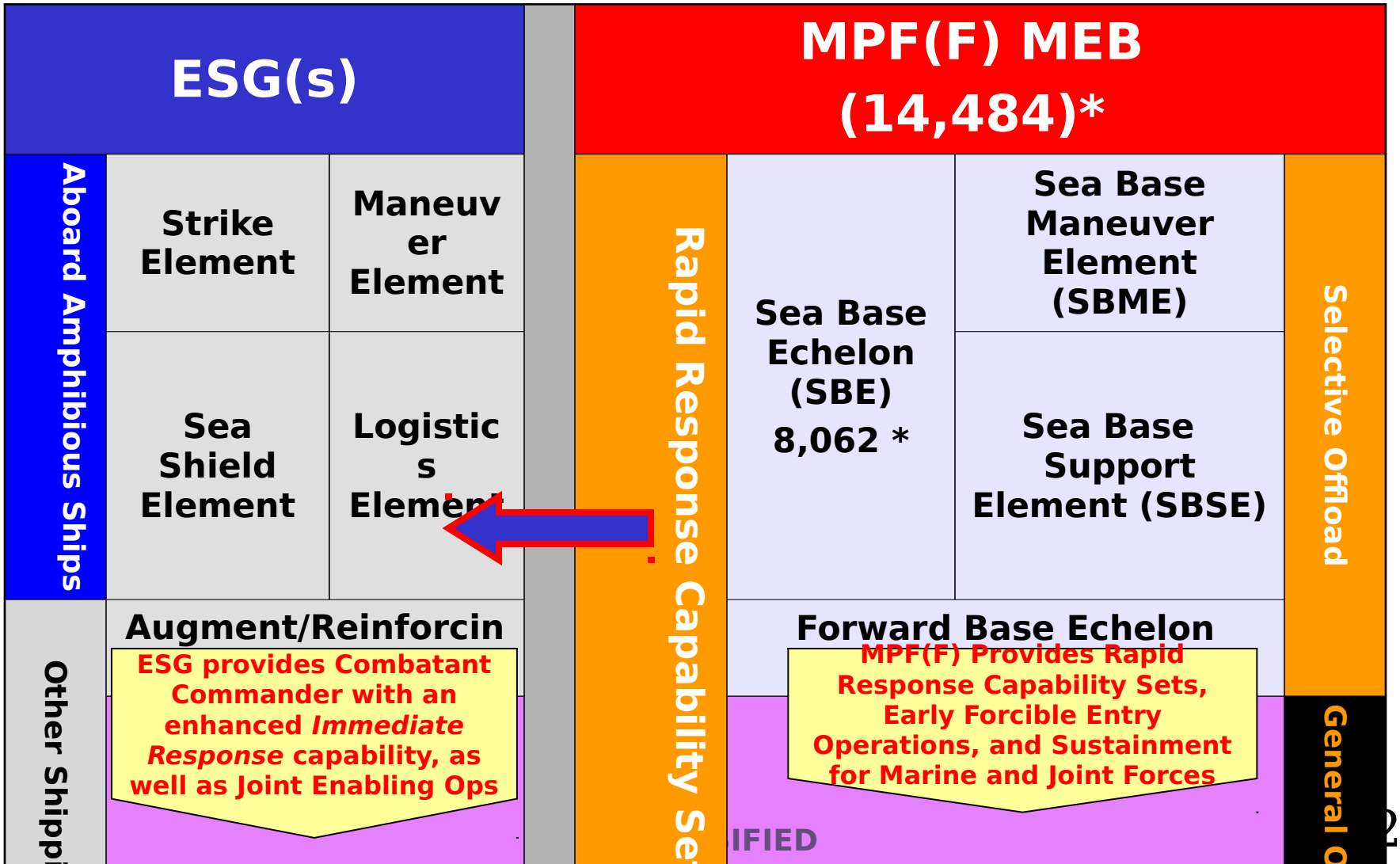
2015 MEB MPF(F) Update

Organization for Deployment and Employment


Amphibious MEB
MPF(F) MEB
Function: All capabilities necessary to transition from OMFTS/STOM operations to Sustained Operations Ashore (command and control, infrastructure, line haul, additional logistics)
Personnel: 4,199
Composition:
Mostly CE and BSSG forces
Key Characteristics:
- Equipment on MPSRON
- Personnel on call at home station (or at base located closer to, but not in, JOA)
- Requires general offload
Capability
Other
tion
All MEB Equipm
Prepositione
Sea Base Echelon (SBE) 8,062 *
Sea Base Maneuver Element (SBME)
Sea Base Support Element (SBSE)
Selective Offload
Forward Base Echelon (FBE)
MPF(F) Provides Rapid Reinforcement and Sustainment
IFIED
Gener
* NSE Not Included

Future Amphib/MPF Synergy

2015 ESG and MPF(F) Synergy


ESG(s)
MPF(F) MEB (14,484)*
Aboard Amphibious Ships
Strike Element
Maneuver Element
Sea Shield Element
Logistics Element
Augment/Reinforcin
Other Shippi
Rapid Response Capability Se
Sea Base Echelon (SBE) 8,062 *
Sea Base Maneuver Element (SBME)
Sea Base Support Element (SBSE)
Forward Base Echelon
Selective Offload
General C
ESG provides Combatant Commander with an enhanced Immediate Response capability, as well as Joint Enabling Ops
MPF(F) Provides Rapid Response Capability Sets, Early Forcible Entry Operations, and Sustainment for Marine and Joint Forces

MEB Sea Base Base Case and Excursion Overview

<u>Purpose:</u> Explore synergism between the ESG and MPG in conducting the assaults

<u>Description:</u>

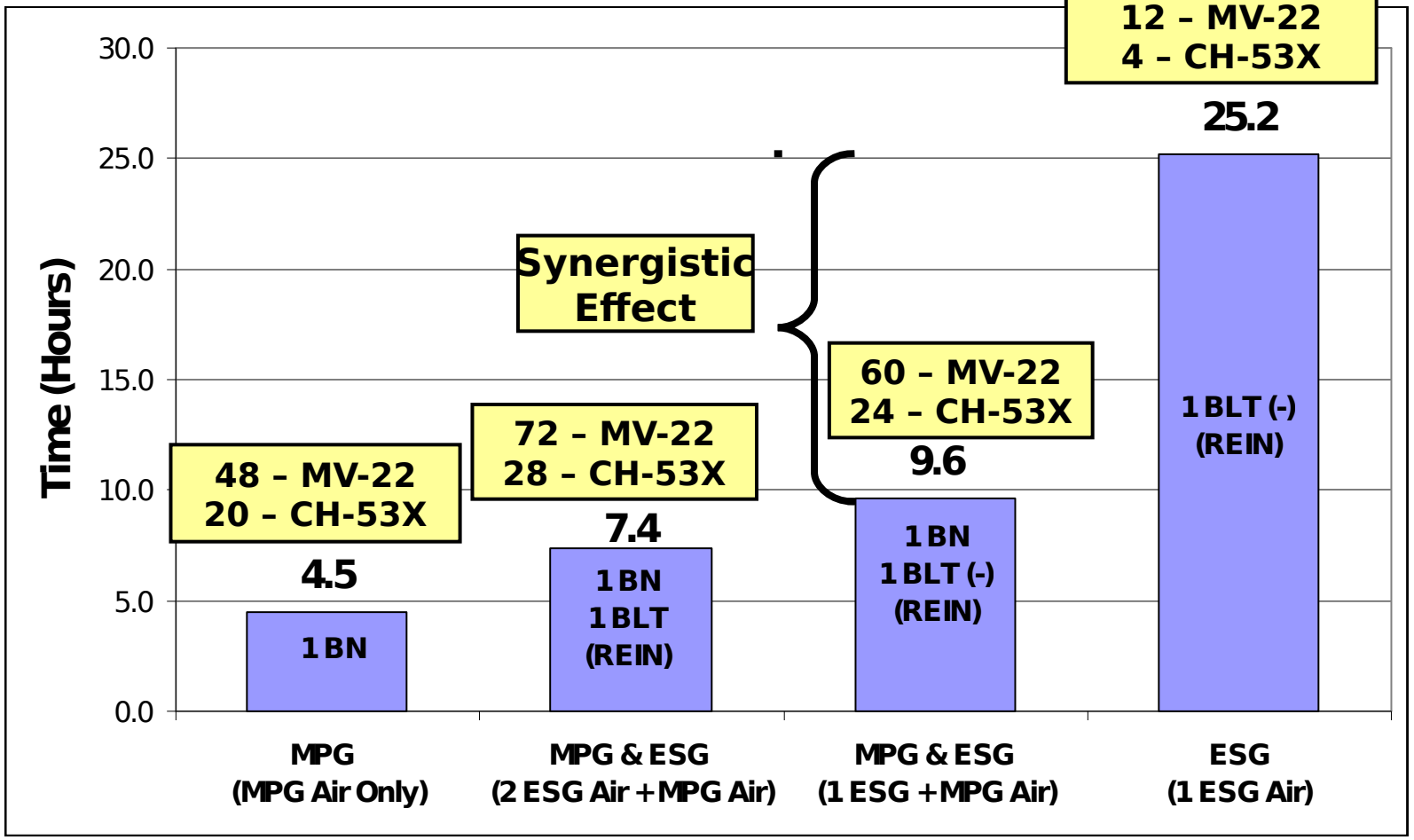
- Landed 1 BLT(-) Rein using only 1 ESG's lift assets
- Landed 1 BN (Rein) from the MPG using only MPG lift assets
- Landed 1 BLT(-) Rein and 1 BN (Rein) using MPG and 1 ESG's lift assets
- Landed 1 BLT (Rein) and 1 BN (Rein) using MPG and 2 ESGs' lift assets

Base Case

N70 ESG/MPG Synergism- Vertical

Time to Complete Assault

The time from the first A/C hitting the LZ till the last A/C leaves the

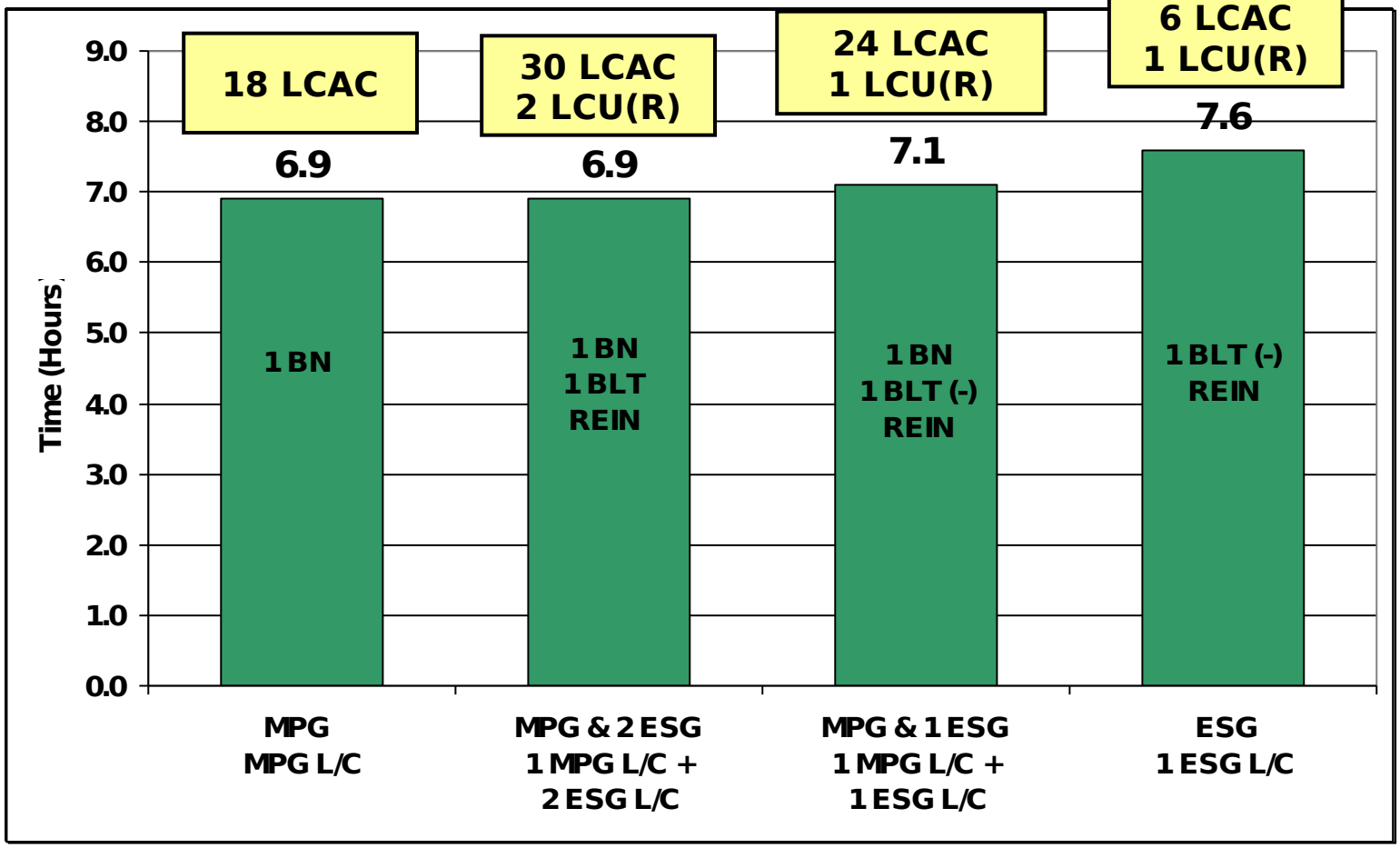


Notes: 110NM range. All cases include CSS supply loads.

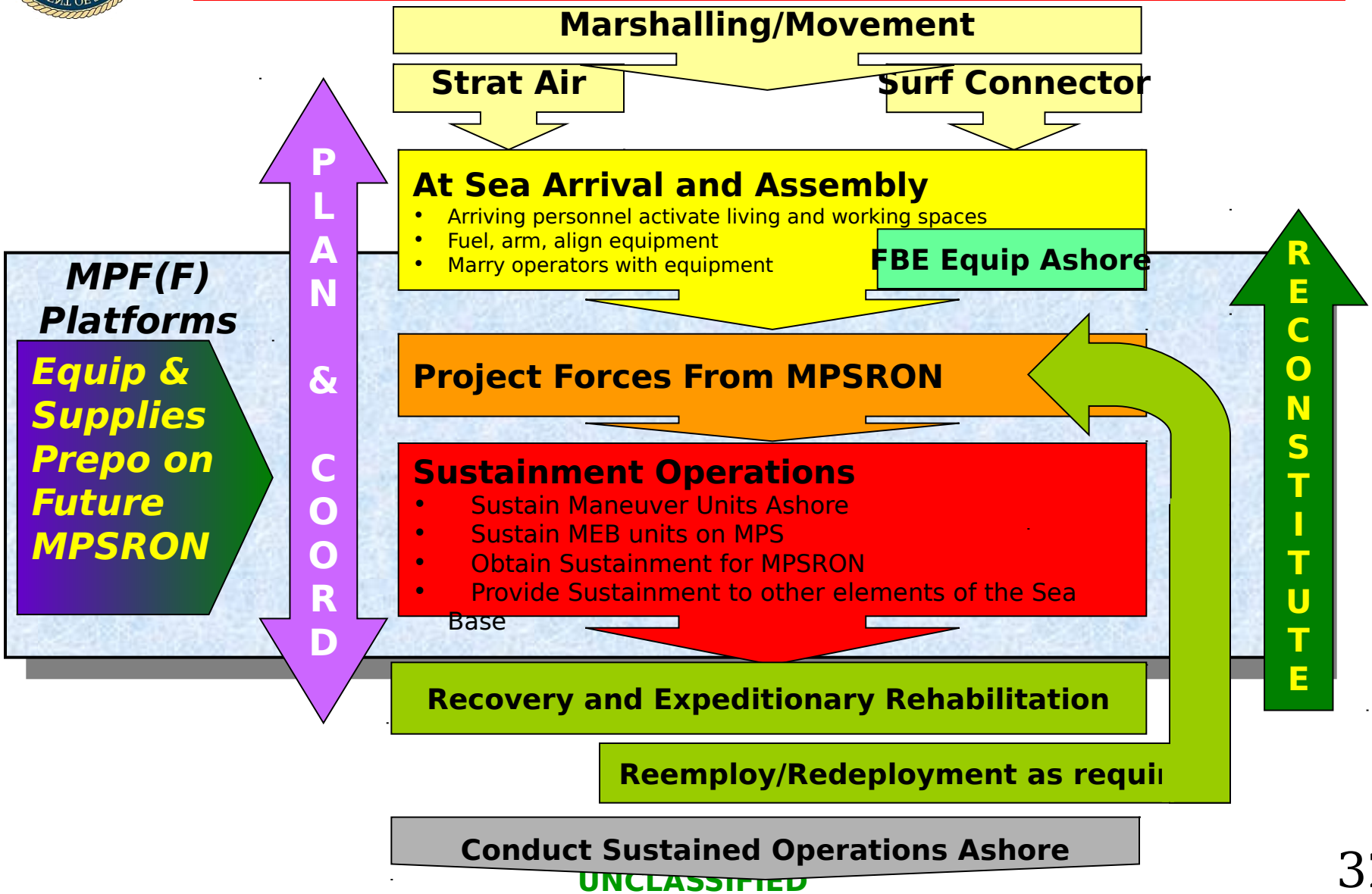
N70 ESG/MPG Synergism-Surface

Time to Complete Assault

The time from the first L/C hitting the beach till the last L/C pulls away from



Phases of MPF(F) Operations


Marshalling/Movement
Strat Air
Surf Connector
At Sea Arrival and Assembly
• Arriving personnel activate living and working spaces
• Fuel, arm, align equipment
• Marry operators with equipment
FBE Equip Ashore
MPF(F) Platforms
Equip & Supplies Prepo on Future MPSRON
PLAN & COORD
Project Forces From MPSRON
Sustainment Operations
• Sustain Maneuver Units Ashore
• Sustain MEB units on MPS
• Obtain Sustainment for MPSRON
• Provide Sustainment to other elements of the Sea Base
RECONSTITUTE
Recovery and Expeditionary Rehabilitation
Reemploy/Redeployment as requi
Conduct Sustained Operations Ashore

Agenda

- MPF/MPF(E)/MPF(F)
- MPF(F) Operational Concept & Capabilities
- MPF(F) and Sea Basing
- What is a MEB?
- **MPF(F) Requirements Matrix**
- Other Interesting Things

MPF(F) Requirements Matrix

Per MNS: (high level)

- Force Closure: Combining the capacity and endurance of sealift with the enhanced speed and flexibility of airlift, marry up forces and equipment in a forward area.
- Amphibious Task Force Interoperability: Ability to reinforce the assault echelon, provide maintenance support to ATF aircraft, surface assault craft, and advanced amphibious assault vehicles.
- Sustainment: Ability to receive, store, maintain and deploy equipment and supplies. Provide for the selective offload and transfer of supplies.
- Reconstitution and Redeployment*: Ability to retrieve rehabilitate, store and redeploy assets.

* **Since revised to Rehabilitation, Reemployment, and Redeployment to better reflect the total range of capabilities**

MPF(F) Requirements (Cont)

- **From draft requirements matrix**:
  - Interoperable w/ Blount Island, CLF, ESG, CSG & connectors
  - Transit and operate in open ocean
    - Embark/Disembark in SS 3, Transfer supplies in SS 5
  - Lift and sustain 2015 MEB T/E
  - Host MSC Crew, Military Dets and embarked troops
  - Launch, recover and maintain RW & TW ACE
  - Launch, recover and maintain OTH lighterage
  - Load, transfer, recover and maintain MEB EQPT & Supplies
  - Generate, store & transfer potable water
  - Store & transfer POLs
  - Ability to support secondary missions (C2V, MCS, MED, SOF)
  - 40 year service life

Agenda

- MPF/MPF(E)/MPF(F)
- MPF(F) Operational Concept & Capabilities
- MPF(F) and Sea Basing
- What is a MEB?
- MPF(F) Requirements Matrix
- **Other Interesting Things**

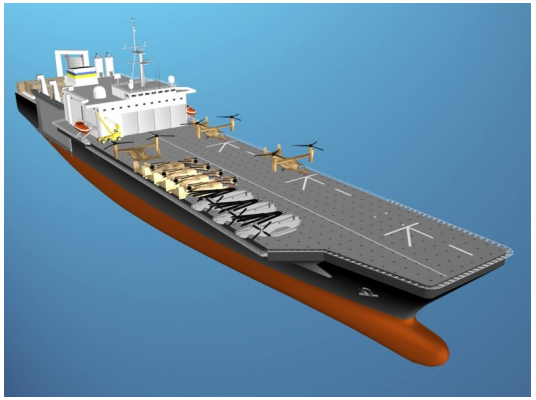
Agenda

- Other Interesting Things
  - Ship Designs
  - Research and Development
  - Amphibs and MPF
  - Key MPF(F) Issues
  - Road Ahead

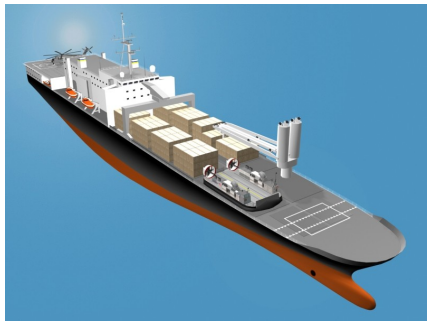
AoA Conceptual Ship Designs

“Large” Distributed capability Ship option

“Small” Distributed Capability Ship option



Family of dissimilar ships option



MPF(F) Design Features

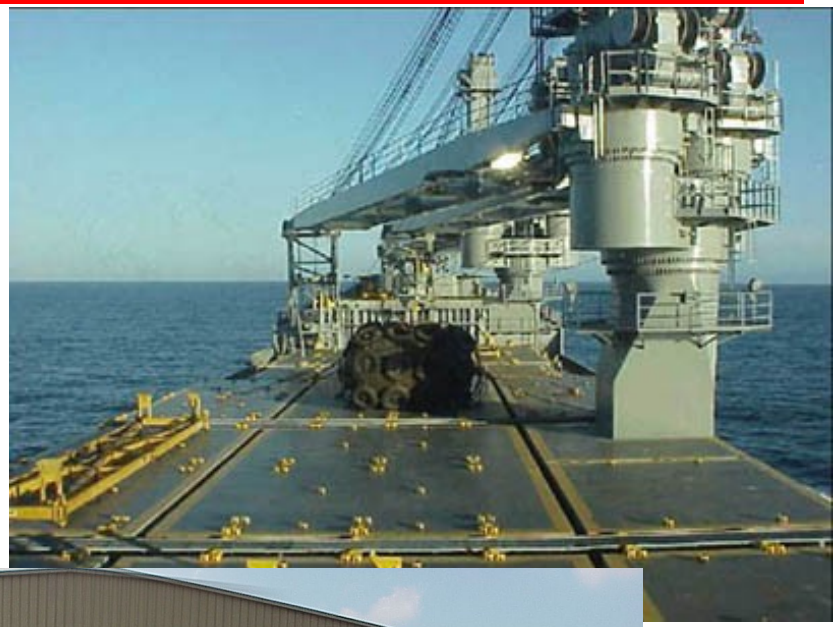
- Military Features
  - Flight deck & Hangar for multiple aircraft
  - Aircraft maintenance space
  - RAS & FAS (heavy lift UNREP)
  - VERTREP
  - Enhanced Damage Control & Fire Fighting systems
  - AT/FP
  - Signature reduction
- Vehicle facilities
  - Extensive RO/RO area (commercial)
  - Vehicle Maintenance bays (military)
- Multi- Product Cargo
  - Pallet stowage with specific offload (military)
  - TEU stowage (commercial)
  - Heavy lift cranes (comm'l)
  - Breakout & assembly areas (military)
  - Transfer & staging areas
  - Ammo & Aircraft Elevators
- Habitability
  - MSC, NSE, MEB (mix of commercial & military STNDs)

Agenda

- Other Interesting Things
  - Ship Designs
  - **Research and Development**
  - Amphibs and MPF
  - Key MPF(F) Issues
  - Road Ahead

Marry Troops with Equipment at Sea

Crane ATD



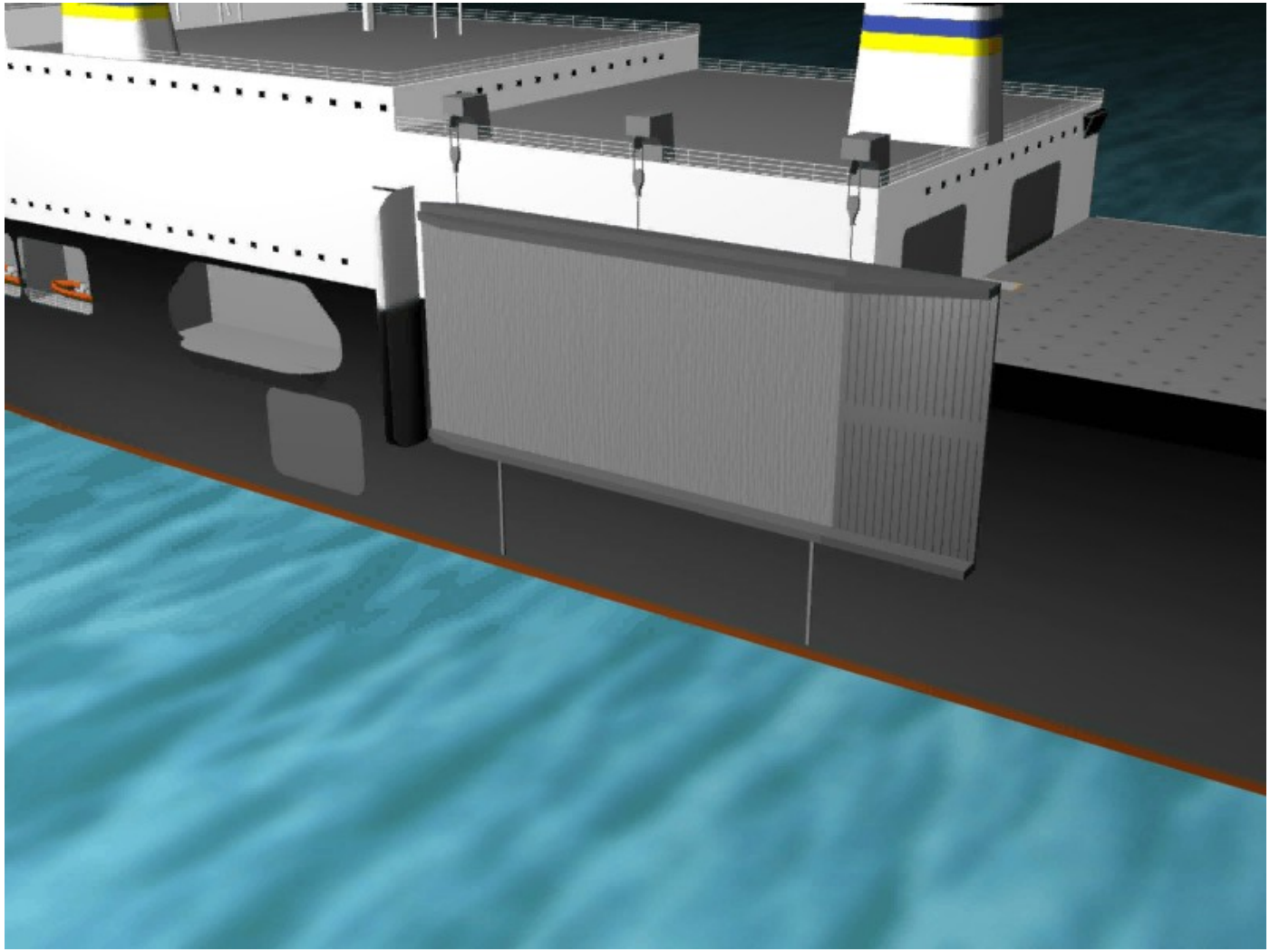
Motion Compensated Cranes & Roll Stabilization Tank

Alongside Cargo Transfer

Skin - To - Skin

Ship Created Lee

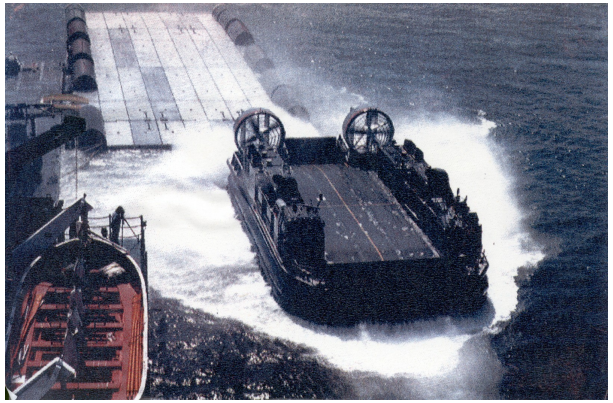
Integrated Logistics Platform (IL



Underway Container Transfer

Small Craft Interface

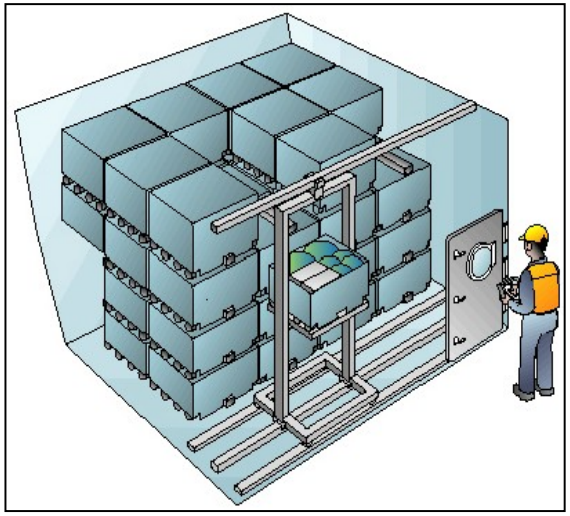
HMAS JERVIS BAY ALONGSIDE HMAS SUCCESS BEING REFUELED IN DILI HARBOUR BEFORE HER RETURN TO DARWIN
PHOTO BY ABPH PHILLIP HUNT NEG NO. NPU 991030-18



Small Craft Interface – LCAC

Seabase Capabilities

Shipboard Elevators



Automated Warehousir

At-sea arrival & assembly

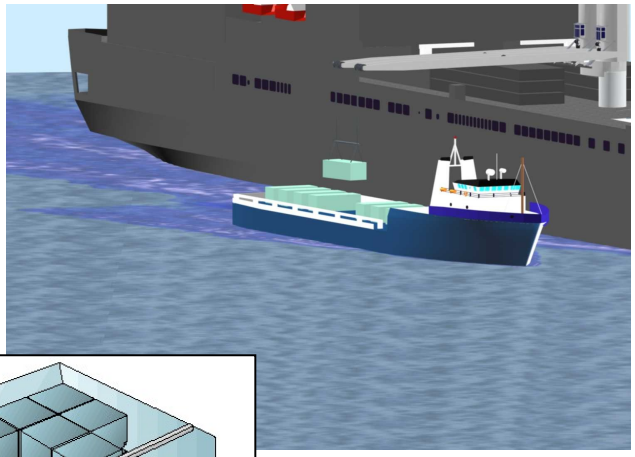
SS3 Crane ATD

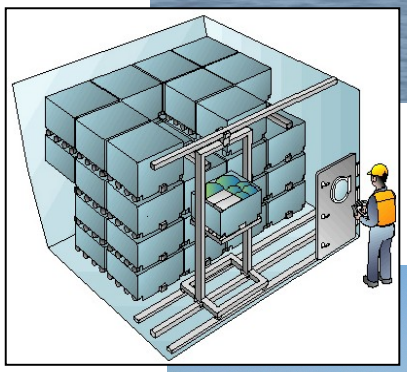
Small Craft Interface

Underway Replenishm

MPF(F) R&D Challenges

1. **Seabase Replenishment**
   - UNREP and VERTREP capable
   - Alongside transfer of containers from boats possible today
   - RDT&E to demonstrate containers transfer from ships in higher seastates
2. **Selective Offload Capability**
   - Operator experimentation feedback
   - Automated stowage technology could reduce MPF(F) volume requirements
   - Allows reconstitution and redeployment
3. **Surface Interface Point (SIP)**
   - RO/RO cargo handling to LCAC, LCU, and HSV is essential
   - Improved capability requires accelerated RDT&E
4. **Joint Heavy Lift Aircraft Compatibility/Operability**



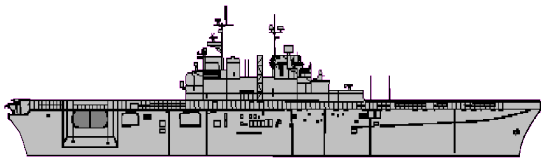


Agenda

- Other Interesting Things
  - Ship Designs
  - Research and Development
  - **Amphibs and MPF**
  - Key MPF(F) Issues
  - Road Ahead

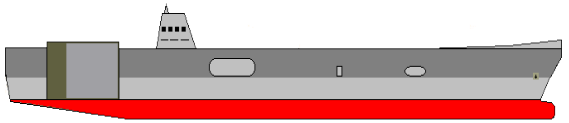
Future ESG – MEB Integration

ESG

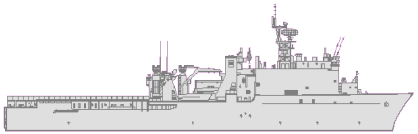


LHD

or



LHA(R)



LSD

LPD

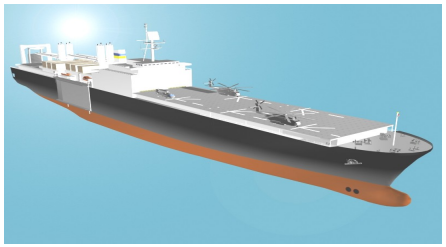
MPG

ESG Support Ship

2013+

+ HSCs

7X



Agenda

- Other Interesting Things
  - Ship Designs
  - Research and Development
  - Amphibs and MPF
  - **Key MPF(F) Issues**
  - Road Ahead

Key MPF(F) Issues

- Survivability Level
- ILP vs Well Deck and Concurrent Designs (Surface Interface Point (SIP))
- Growth of Load
- Crewing vs. Forcible Entry
- Heavy Lift Aircraft Accommodation
- Medical Capability (Level II vs III)
- Shipyard Competition
- C4I - How Much Joint interface?

Agenda

- Other Interesting Things
  - Ship Designs
  - Research and Development
  - Amphibs and MPF
  - Key MPF(F) Issues
  - **Road Ahead**

The Road Ahead

- 24 Jun 04 — Future Ships & Sea Based Connectors (FS & SBC) IPT
- 29 Jun 04 — Marine Requirements Oversight Committee (MROC)
- 6 Jul 04 — Navy Marine Corps Board (NMCB)
- TBD — CMC Brief
- 22 Jul 04 — Executive Committee (EXCOM)

Questions ?